

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A structure of a light emitting diode (LED), comprising:
a substrate;
a single bragg reflector layer, said layer being located on said substrate, wherein said single bragg reflector comprises:
a first plurality of highly oxidizable semiconductor layers, which when oxidized
~~semiconductor layers is oxidized to~~ form a current insulating layer; and
a second plurality of less oxidizable semiconductor layers;
wherein said first plurality of layers and said second plurality of layers are alternately stacked on each other;
an LED epitaxial structure located on said single bragg reflector layer, wherein said LED epitaxial structure comprises an n-type III-V compound semiconductor layer, an illuminating active layer, and a p-type III-V compound semiconductor layer;
a first electrode located on an exposed portion of said n-type III-V compound semiconductor layer; and
a second. electrode located on an exposed portion of said p-type III-V compound semiconductor layer.
2. (Cancelled)
3. (previously presented): The structure according to claim 1, wherein said second plurality of less oxidizable layers are AlGaInP layers.
4. (previously presented): The structure according to claim 1, wherein said second plurality of less oxidizable layers are AlInP layers.

5. (previously presented): The structure according to claim 1, wherein said second plurality of less oxidizable semiconductor layers are low aluminum containing AlGaAs layers.

6. (previously presented): The structure according to claim 1, wherein said first plurality of oxidizable semiconductor layers are high aluminum containing AlGaAs layers.

7. (previously presented): The structure according to claim 6, wherein the an aluminiferous content of said high aluminum-containing AlGaAs layers are between about 80% and about 100%.

8. (previously amended): The structure according to claim 6, wherein said current insulating layer is formed by oxidizing each of said high aluminum containing AlGaAs layers at a temperature between about 300 and about 800 degree C.

9.-16 (cancelled)

17. (currently amended): A structure of a light emitting diode (LED), comprising:
a substrate;

a bragg reflector layer located on said substrate, wherein said bragg reflector comprises:

a first plurality of highly oxidizable semiconductor layers, which when partially oxidized along a lateral direction form a current insulating layer, said first plurality of being high aluminum-containing AlGaAs layers, having an aluminiferous content of between about 80% and about 100%; and

a second plurality of less oxidizable semiconductor layers, wherein said first plurality of oxidizable semiconductor layers and said second plurality of less oxidizable semiconductor layers are alternately stacked on each other, wherein said first plurality of less oxidizable semiconductor layers are low aluminum-contained AlGaAs layers;

an LED epitaxial structure located on said bragg reflector layer, wherein said LED epitaxial structure comprises an n-type III-V compound semiconductor layer, an illuminating active layer, and a p-type III-V compound semiconductor layer;

a first electrode located on an exposed portion of said n-type III-V compound semiconductor layer; and

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a second electrode located on an exposed portion of said p-type III-V compound semiconductor layer.

18. (new): The structure according to claim 17, having only one bragg reflector layer structure.

19. (new): The structure according to claim 1, wherein said current insulating layer is formed when said first plurality of highly oxidizable semiconductor layers are partially oxidized along a lateral direction.